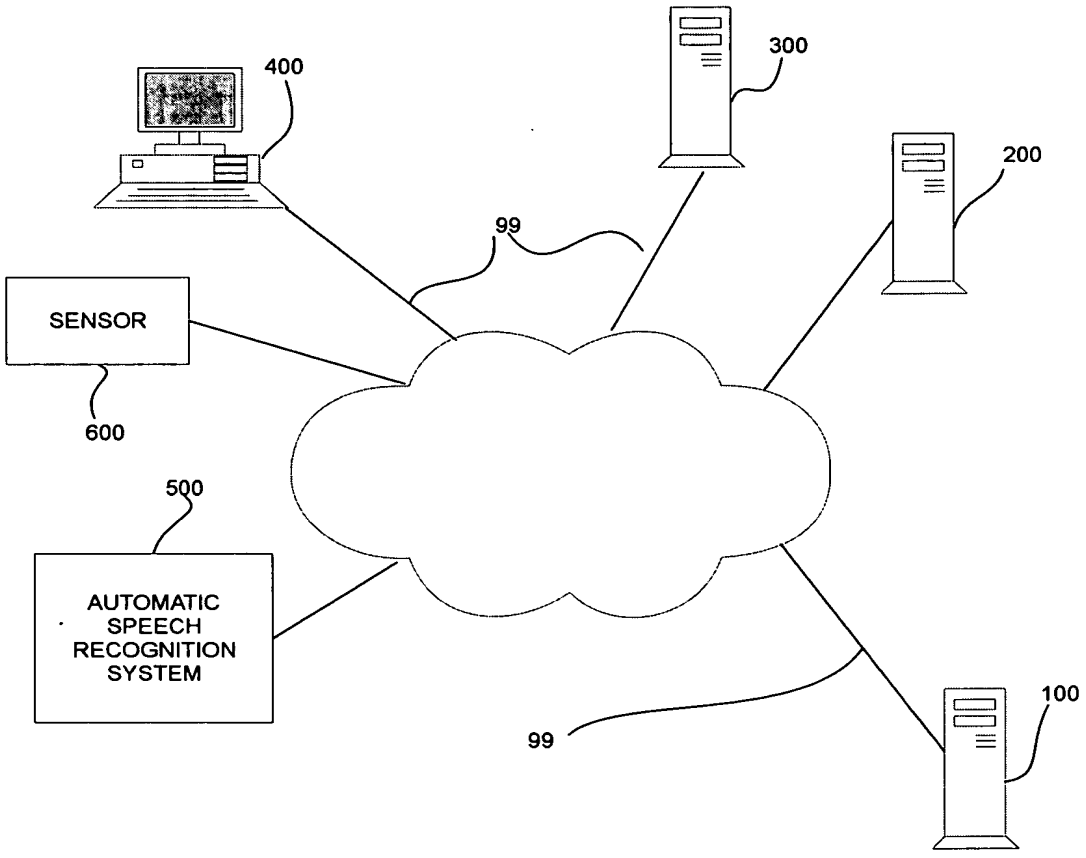
400
300
200
99
SENSOR
600
500
AUTOMATIC
SPEECH
RECOGNITION
SYSTEM
99
100

FIG. 1

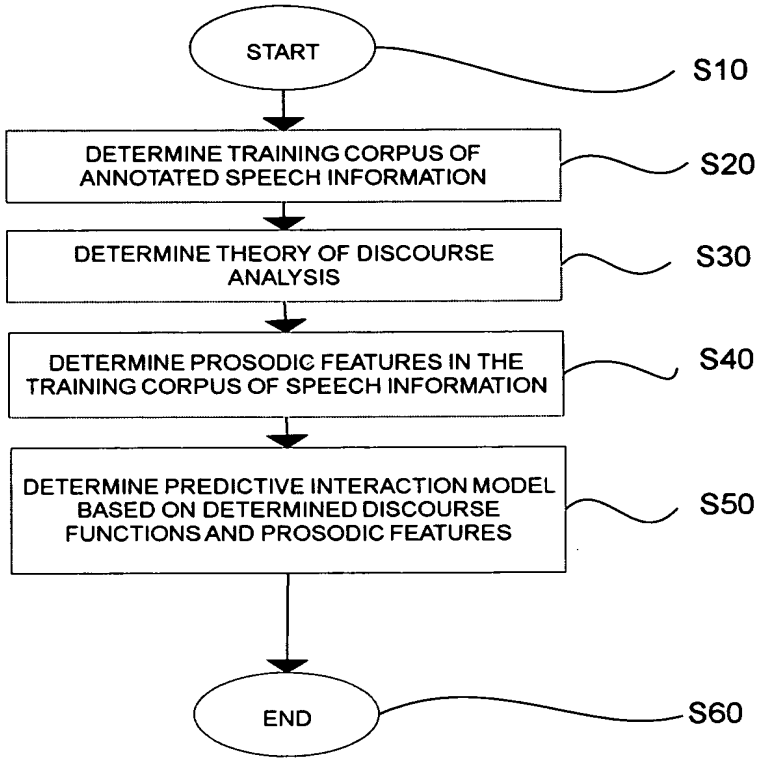
START
S10
DETERMINE TRAINING CORPUS OF ANNOTATED SPEECH INFORMATION
S20
DETERMINE THEORY OF DISCOURSE ANALYSIS
S30
DETERMINE PROSODIC FEATURES IN THE TRAINING CORPUS OF SPEECH INFORMATION
S40
DETERMINE PREDICTIVE INTERACTION MODEL BASED ON DETERMINED DISCOURSE FUNCTIONS AND PROSODIC FEATURES
S50
END
S60

FIG. 2

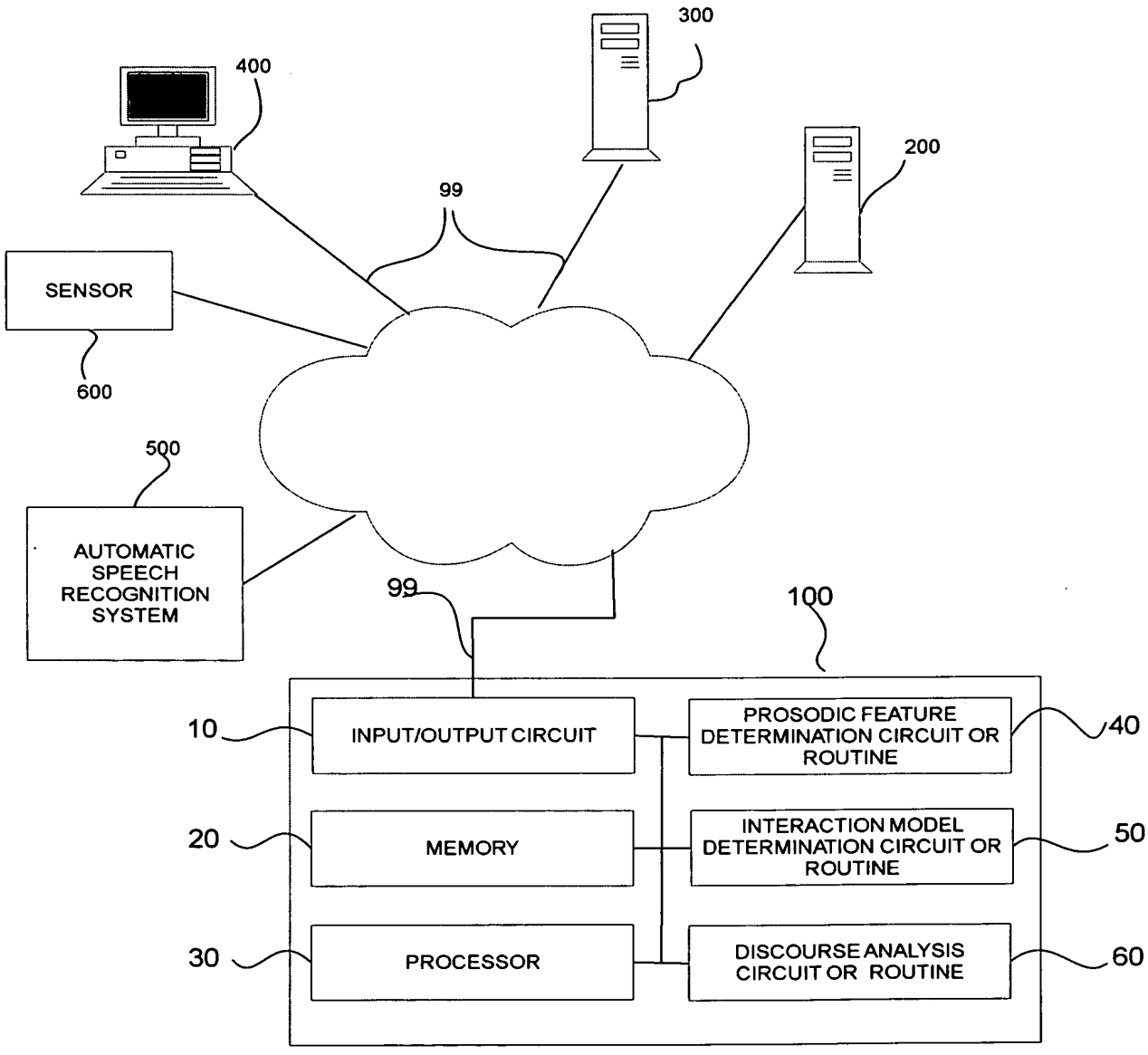
300
400
200
99
SENSOR
600
500
AUTOMATIC SPEECH RECOGNITION SYSTEM
99
100
10
INPUT/OUTPUT CIRCUIT
PROSODIC FEATURE DETERMINATION CIRCUIT OR ROUTINE
40
20
MEMORY
INTERACTION MODEL DETERMINATION CIRCUIT OR ROUTINE
50
30
PROCESSOR
DISCOURSE ANALYSIS CIRCUIT OR ROUTINE
60

FIG. 3

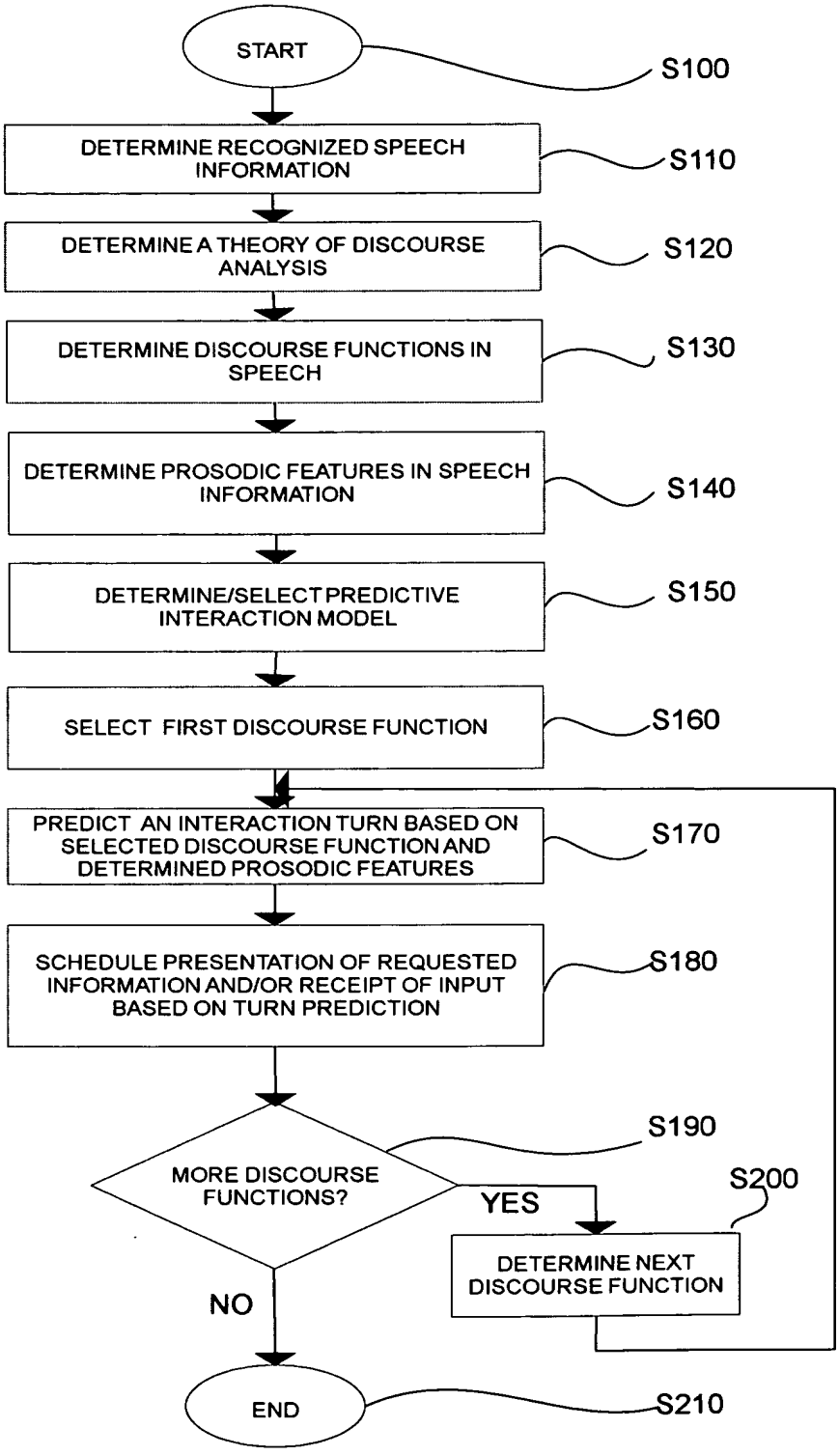
START
S100
DETERMINE RECOGNIZED SPEECH INFORMATION
S110
DETERMINE A THEORY OF DISCOURSE ANALYSIS
S120
DETERMINE DISCOURSE FUNCTIONS IN SPEECH
S130
DETERMINE PROSODIC FEATURES IN SPEECH INFORMATION
S140
DETERMINE/SELECT PREDICTIVE INTERACTION MODEL
S150
SELECT FIRST DISCOURSE FUNCTION
S160
PREDICT AN INTERACTION TURN BASED ON SELECTED DISCOURSE FUNCTION AND DETERMINED PROSODIC FEATURES
S170
SCHEDULE PRESENTATION OF REQUESTED INFORMATION AND/OR RECEIPT OF INPUT BASED ON TURN PREDICTION
S180
MORE DISCOURSE FUNCTIONS?
S190
YES
S200
DETERMINE NEXT DISCOURSE FUNCTION
NO
END
S210

FIG. 4

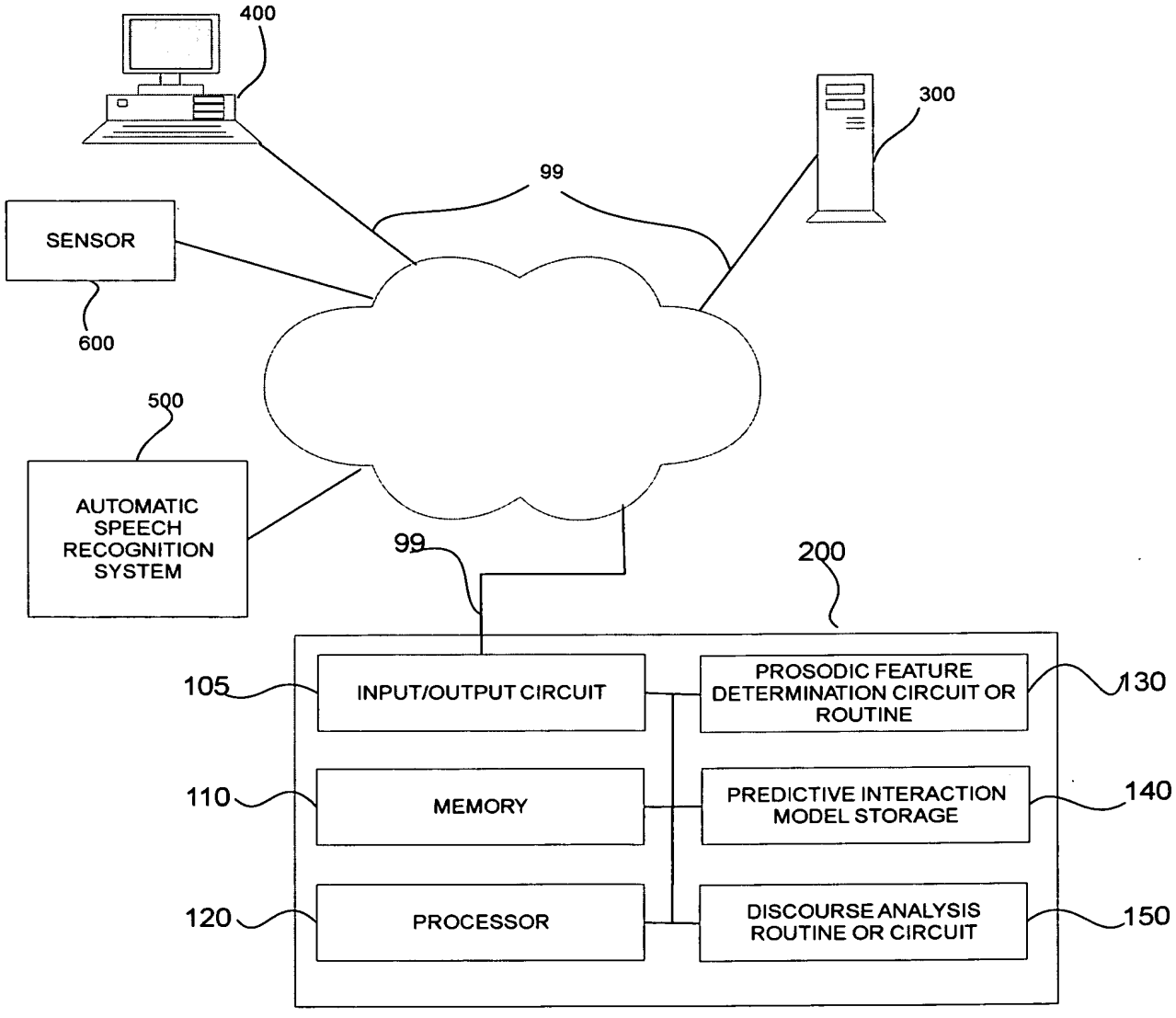
400
300
99
SENSOR
600
500
AUTOMATIC SPEECH RECOGNITION SYSTEM
99
200
105
INPUT/OUTPUT CIRCUIT
PROSODIC FEATURE DETERMINATION CIRCUIT OR ROUTINE
130
110
MEMORY
PREDICTIVE INTERACTION MODEL STORAGE
140
120
PROCESSOR
DISCOURSE ANALYSIS ROUTINE OR CIRCUIT
150

FIG. 5

700

USER ID	PROSODIC FEATURES	PRECEDING DISCOURSE FUNCTION SEQUENCE	TRAILING DISCOURSE FUNCTION SEQUENCE	PREDICTION
A13D	DF[LAST].PF[SILENCE_ TRAILING] > 0.10;	(A1-A6)A1A4;		0.60
A13D	{ (DF[FIRST].PF[PITCH_ _FREQUENCY_INITIAL] > 110); (DF[LAST].PF[STRESS].SEGMENT.LAST == TRUE); }	{ (A1-A8)A2A2A9; .A1A3 +A9; }	A8A1;	0.75
.	.	.	.	.
.	.	.	.	.
.	.	.	.	.
B24F	DF[LAST-1].PF[SILENCE_TRAILING] > 0.15;	.(A1-A6)A1A4;	A3.A2;	0.64

710 OPTIONAL 720 730 740 750

Fig. 6